

White Paper Report

Report ID: 109706

Application Number: HD-51772-13

Project Director: Luis Gomez (lo2gomez@gmail.com)

Institution: Mangalam Research Center for Buddhist Languages

Reporting Period: 5/1/2013-1/31/2015

Report Due: 4/30/2015

Date Submitted: 4/30/2015

Type of report: White Paper

Grant number: HD-51772-13

Title of the Project: The Buddhist Translators Workbench (BTW), a project of Mangalam Research Center for Buddhist Languages

Project Director: Luis Oscar Gomez (lo2gomez@gmail.com)

Institution: Mangalam Research Center for Buddhist Languages

Report submission date: 4/30/2015

WHITE PAPER
to accompany FINAL REPORT
START-UP LEVEL II GRANT
in THE DIGITAL HUMANITIES



Buddhist Translators Workbench

Authors: Luis Oscar Gómez, Project Director; Ligeia Lugli, Senior Research Associate; Jack Petranker, Project Coordinator

Contact: jackp@mangalamresearch.org

Project Description

The Buddhist Translators Workbench (BTW), <http://btw.mangalamresearch.org>, is an ongoing research project centered on the idea of a tool for translators and scholars based on contemporary standards of lexicology. It has two immediate goals. First, historically and in terms of the project's focus during Start-up Phase II, the research, theoretical modeling and digital implementation of BTW aims to generate data and research to assist translators of Buddhist texts (at this point, especially translators engaged in the task rendering the classical Sanskrit Buddhist idiom). This aspect of the project reflects the goals of classical philology, but supersedes traditional philological tools by bringing to bear contemporary lexicological and translation studies upon the classical task of intercultural text transfer.

Second, BTW models translation and lexicology beyond its application to the translation of Sanskrit and Buddhist texts. BTW's innovative approach has the potential to change the task of translation in fundamental ways, potentially extending its usefulness to Buddhist literature in other languages, and to research in areas of language, literature and culture outside the realm of Buddhist cultures. The structure of BTW's template can be applied outside the field of Buddhist Sanskrit, and its data visualization features promise to be of use in conceiving and investigating semantic webs of meaning in other fields of the humanities.

Using contemporary theory and best practices in lexicology and translation theory, BTW makes use of advances in the digital analysis of semantic relations and semantic fields, in data-linking capabilities, and in data visualization representing the contextual use of language in ways that illuminate the task of translation. At the same time, BTW draws on the traditional resources available to translators, including the philological study of Buddhist texts, in a digital format that facilitates access and analysis of the textual data base, linking different parts of the database amongst themselves and to the semantic range of English words and the semantic fields of English. As explained below, these tools can be used both pedagogically and lexicologically.

Origins of BTW

In 2010, a group of scholars met at Mangalam Research Center for Buddhist Languages (MRC) to explore ways to improve on existing tools and techniques of translation. The scholars agreed that translation tools available for translating classical Buddhist text could be substantially improved. They also recognized that a set of standards for best practices and didactic models for translation was lacking. Research began on appropriate methods for addressing these concerns that would draw on the new capacities made available by digital tools.

Inspired both by Western philology and the wide spectrum of traditional approaches to translation in Asia and in the modern Academy, BTW began with an exploration of existing tools for translation. These included traditional compilations of translation equivalents, such as the ninth-century *Mahāvīyutpatti* (Tibetan, *Bye brag tu rtogs par byed pa chen po*), and related lexicographic works such as the *Sgra sbyor bam po gnyis pa* (a text regarded as a sort of commentary on the *Mahāvīyutpatti*, but, more importantly, revealing the lexicological reasoning of traditional Tibetan translators of Buddhist texts); and including as well the great dictionaries of Western Sanskrit and Pāli studies, starting with Otto von Böhtlingk and Rudolf Roth's monumental *Sanskrit-Wörterbuch* (1855-1875). Early ideas for our project stayed close to such models; in fact for a short time, BTW considered producing an updated critical English version of the *Mahāvīyutpatti* or an update of Franklin Edgerton's pioneering *Buddhist Hybrid Sanskrit Dictionary* (1953). Additionally, BTW staff considered various approaches to integrating existing dictionaries, word-lists, and digitized texts into a language-agnostic search tool that would incorporate textual parallels in Sanskrit, Pāli and Gāndhārī and traditional translations of Indian Buddhist texts into Chinese and Tibetan, as well as contemporary translations from a parallel corpus of English, German and French renderings of Buddhist terminology. All such projects were eventually rejected as being too large in scope and as

insufficiently innovative to take advantage of the digital revolution in the humanities.

In the end, MRC decided on taking BTW in a new direction. Instead of giving translators digital access to existing resources (texts and lexica) or adding more resources in traditional formats to allow them to continue in their accustomed approaches to translation, the BTW team aimed to point translation efforts in a direction that would make better use of advances in lexicology, translation studies and digital humanities.

The core difficulty that the BTW team identified in current translation practice was the problematic habit of seeking translation equivalents for isolated words and terms by aiming at a one-to-one match between the source and target languages. The team also began to question over-reliance on intuitive, speculative searches for equivalents, or on etymological *calques* (attempts to duplicate in the target language the etymology of the term in the source language). Of course, such time-honored approaches have a role to play and retain their value. However, we saw the potential for applying more contemporary models to the translation of Buddhist texts. To understand the significance of this shift, it is helpful to review briefly the state of translation studies and practice.

BTW Within the Evolution of Translation as a Discipline

Translation and philology are among the most ancient and important intellectual enterprises behind the spread of Buddhism, and remain to this day the most important vehicles for the preservation, transmission and reception of Buddhist traditions and ideas in the West. But the historical importance of translation is not limited to the history of Buddhism or to its reception in the countries of Asia and the modern West. The central role of translation can be traced in some of the earliest records of intercultural encounter, from Sumer to China. They include the great enterprises of translating Greek into Latin and Arabic, the early translations of the Bible, and the subsequent role of cross-linguistic communication during the Colonial age, continuing into the Post-colonial age and the present period of globalization. During this long history, and especially in recent decades, there have been major changes in the role translation plays, our understanding of how it works, and our more general sensitivity to how language transmits and constructs meaning.

Other changes also affect the translation enterprise. The expectations of readers have changed radically, and historical models of authority and meaning do not easily accord with the changed circumstances of the 21st century. In particular, translation no longer occurs under the sponsorship of a centralized authority—a monarch or ecclesiastical hierarchy—freeing the contemporary scholar from the controls that in the past limited the range of choices available to individual translators.

The traditional assumption that words in religious texts are only terms or codes for ahistorical concepts, still common among some translators of classical Sanskrit Buddhist texts, has also been called into question, replaced by a focus on the cultural context and historical dynamics of texts. Some have feared that a shift away from an ahistorical approach might undermine the religious significance of the texts being studied, yet this fear seems particularly inappropriate in the context of translating Buddhist texts, which often acknowledge the creative and constructive power of language, not only at the philosophical level, but also in terms of exegetical and translation practice in traditional Asian contexts. It is worth noting that Tibetan and Chinese translators and commentators encountered similar questions and grappled with issues similar to the ones we encounter today, and that they responded by developing a variety of approaches and methodologies (some of which are still used in the field of Buddhist Studies).

All these factors and changing circumstances must be taken into account when contemporary students of Buddhist literature set out to emulate the accomplishments of the great Buddhist translators of the past. Our understanding of the methods and purposes of translation has changed significantly since the middle of the 20th century, yet the practice of translators fails to take such changes into account.

Taking a New Direction

Responding to a need to bring the study and translation of classical Sanskrit texts into the 21st century, the BTW team soon abandoned any idea of producing a new lexicon that would simply improve on existing tools for translation. Many rounds of conceptualizing and testing various models followed, and eventually a new model emerged. We believe we are now positioned to introduce a significant shift in Buddhist studies and in the philological study of Buddhist texts. The key is to turn away from deriving meaning from the intuitive and etymological analysis of words and concepts (deduced meaning) to a contextual understanding of the creation of sense within the web of discourse (integrated meaning). This fundamental move makes it much more likely that translators can succeed in their fundamental task: to reconcile accuracy (the goal of faithfulness to the source language and loyalty to the source culture) with the need to stay within natural, idiomatic forms of the target language and the modes of understanding at work in contemporary thought.

Toward the close of the Level I Start-up Grant in the Digital Humanities awarded by the National Endowment for the Humanities, and continuing into the early phases of the Level II grant, BTW created an innovative template for bilingual digital lexicography that takes full advantage of the digital nature of BTW. The starting point is a basic template in which both the user interface and data input identify a headword (the canonical or citation form of a semantically related family of words). The headword (technically called the *lemma*, plural *lemmata*) can be linked to other headwords. BTW allows the user to locate each lemma in a wide range of contexts, using comprehensive citations that illustrate its different uses. This approach, described in detail below, makes BTW a tool with the potential for a much wider application for the humanities. It offers a unique way of testing, operationalizing and demonstrating important principles of bilingual lexicography, historical semantics, and translation theory.

An important element in the BTW template is an interactive *contrastive section* that encourages translators to explore the lemma's semantic “neighbors.” [Figure 1]

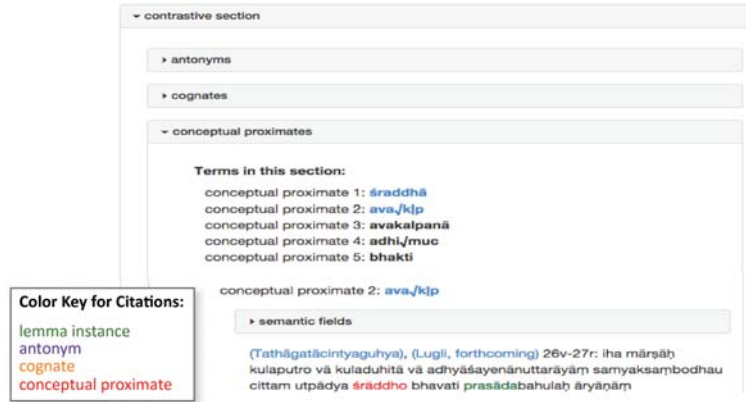


Figure 1: Contrastive section of a BTW entry.

The contrastive section represents a huge improvement on existing lexicographic resources for Buddhist translators. It encourages Sanskritists to move away from the lists of equivalents and the scholastic definitions traditionally used as touchstones in the translation of Buddhist texts, and to instead conceive of the Buddhist lexicon as part of a network of signification. Rather than looking up a single term and its possible equivalents, users can use the contrastive section to start investigating the lexical clusters of semantically and etymologically related words.

By its very structure and organization, then, BTW reminds the translator that translation is not simply about word-matching or constructing etymological calques. Instead the translator must always keep in

mind a word or phrase's polysemy: the wide range of meanings expressed by a single lemma as it occurs within different semantic environments. BTW also allows the user to observe and explore the word's collocations: the interaction of every lemma with "the company it keeps" (J. R. Firth, 1957). BTW thus acknowledges the complex web of meanings that is language, a consideration that becomes critical when one attempts to compare the webs of two or more distinct languages. Working with such webs forms one of the main challenges of translation as applied linguistic science and translation theory.

BTW represents the linguistic web of meaning of specific contexts in the database by integrating into a basic template a record of several key factors: 1) a lemma's *polysemy* (the semantic *spectrum*, or cluster of meanings expressed by a given word); 2) its *synonymic* network (the various semantic relations of words with similar or nearly equivalent meanings); 3) its *antonymic* network (words expressing opposite or contrasting meanings); 4) its cognate and etymological relations, and 5) other potentially illuminating lexical relations. Most importantly, as explained further below, BTW offers extensive guidance on the lemma's semantic field (the family of concepts under which a particular lemma falls).

The template used to organize the entries follows contemporary principles in linguistic theory and practice, and it also tallies well with contemporary approaches in translation theory. The way the information in the entry is organized is complemented by BTW's capacity to expand a translator's choice by showing in text and infographics the polysemic structure of a given word and offering extensive guidance on the lemma's semantic field.

Building on a Lemma's Semantic Field: the *Historical Thesaurus of English*

A major innovation in BTW is the way it integrates into its lexicographic template the conceptual structure of the *Historical Thesaurus of English* (HTE): <http://historicalthesaurus.arts.gla.ac.uk/>), maintained and curated by the English Language Department of the University of Glasgow (The print version, published in 2009 as the *Historical Thesaurus of the Oxford English Dictionary*, has now been largely superseded by the electronic version.) The HTE is a database of all the lemmas in the second edition of *The Oxford English Dictionary* (OED), arranged by semantic field and date of occurrence. As the most complete record of the semantic relations of the English language, the HTE provides a unique resource for the exploration of English renderings for Sanskrit. BTW is the first resource to use the *Historical Thesaurus* for inter- and intra-lingual semantic comparisons; the implementation of full-scale integration between BTW and HTE will have significant implications in the field of applied linguistics. The editors of the HTE have supported BTW's efforts to take full advantage of this capacity.

BTW makes use of the HTE in the following way. Each occurrence of a Sanskrit word in the BTW corpus is assigned to one or more of the 236,400 semantic categories of the HTE. This is possible because each category is labeled with a unique identifying number that locates it in a fine-grained conceptual taxonomy. BTW is thus potentially able to compare the semantic range of Sanskrit lemmata with that of any English word. By drawing on this pre-existing conceptual structure, BTW is able to chart all occurrences of Sanskrit words in our corpus into a structured semantic map. This allows the translator to explore the choices at the heart of the negotiation of meanings necessary for effective translation between languages with potential differences in semantic and conceptual configurations.

In its current, proof-of-concept version, BTW offers bilingual comparison for only a selected number of English words, which have been manually inserted into the database, a serious limitation in the context of translation work. The BTW team is now working toward full-scale integration with the HTE. The first step, already completed, is the development of a rudimentary system of semantic tracking that allows BTW team members to assign a semantic value (or range of values) to each occurrence of a Sanskrit word in our corpus. In the implementation phase of BTW, we will develop software for multilingual semantic mapping and tracking, developing a framework for the crossover between Sanskrit and English mappings. We plan to achieve this through the implementation of the following new features:

1. More complete integration with the HTE

BTW will soon be able to query the *Historical Thesaurus of English* from within BTW through an Application Program Interface (API). Users will be able to switch seamlessly from looking up the senses of Sanskrit words to searching for English “equivalents” that match the relevant semantic categories. The integration will also enable BTW to display the *name* of the semantic categories (presently only their numbers are visible.) For example, the semantic category that now appears as “03.08” will appear as “faith”.

2. Bilingual search by word-sense

Once the HTE integration is fully implemented, users will be able to search by the sense of any lemma in BTW. By searching words by their senses, searching for the lemma’s semantic categories and the concepts included in those categories, and by retrieving all the Sanskrit words linked to a specified meaning, the user will be able to access the words that express them (*onomasiological* search) with the same ease that the template currently leads the user from word to concepts (*semasiological* search). Eventually, this feature will be able to access derivatives, cognates and related lemmata (using *synonymy*, *antonymy*, *holonymy* or *meronymy*, as described above).

This search will be bidirectional. Translators will be able to retrieve all the Sanskrit lemmata and citations linked to a chosen semantic category, and, conversely, all the English words associated with the semantic spectrum of a Sanskrit lemma. This will make it easy to explore how a semantic category is expressed in particular words in our corpus (how a particular concept is *lexicalized*), as well as to investigate the possible rationale for different lexical choices in various texts.

Conversely, by querying the *Historical Thesaurus* via BTW, users will also be able to retrieve all the English words that match the semantic spectrum of the tracked Sanskrit word. Our software will indicate the percentage of the semantic overlap between the Sanskrit and its rendition, thus guiding the increasing number of translators who are non-native speakers of English in their lexical choices. This capability will help counter the tendency for translators to adopt the cognitive equivalents found in the most popular lexicographic resources as ready-made renditions for use in actual translations, despite the fact that such equivalents are neither suitable for, nor meant to be used in, such a way.

3. Data Visualization

To facilitate use of the semantic data contained in BTW, we are planning to develop a number of infographic tools. For example, BTW will graphically chart the semantic spectrum of a Sanskrit lemma

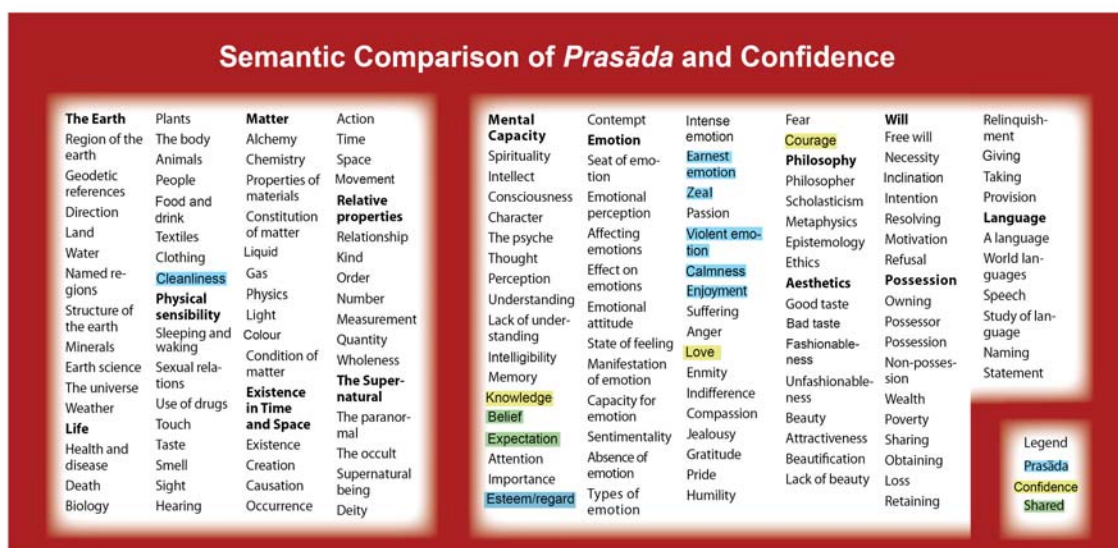


Figure 2

spectrum of a Sanskrit lemma onto the conceptual structure of the HTE and superimpose the graphic created in this way onto the equivalent graphic of any chosen English rendition or near-synonyms in Sanskrit [Figure 2]

It will also be possible to generate charts that compare the semantic spectra of near-synonyms and cognates within a single text, or in a certain genre [Figure 3]

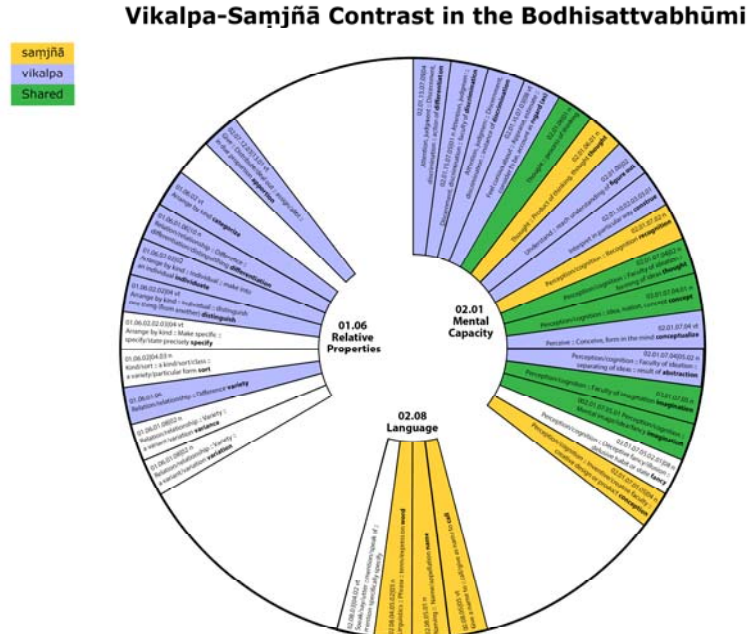


Figure 3: Vikalpa-Samjñā in the Bodhisattvabhūmi.

For translators and lexicologists interested in getting a broader picture of a lemma's semantic profile, or wishing to chart the lemma's position in the relevant semantic space relative to other Sanskrit words, BTW will generate semantic maps based on the entirety of its database. [Figure 4]

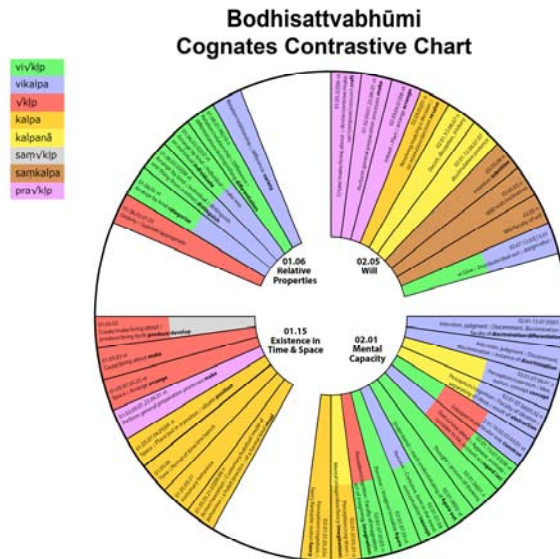


Figure 4: Contrastive chart of the semantic value of cognates in a single text

This aspect of the project will be a pioneering contribution to the application of data-visualization techniques to translation and historical semantics.

4. Tracking Meanings (the Semantic Tracker)

To further implement the workbench aspect of BTW, we plan to develop a suite of tools designed to help translators interpret and translate their own source texts through methods similar to those implemented in BTW itself. A specially adapted version of the BTW editor, known as the Semantic Tracker, will be made available to users, letting them select semantic categories from the HTE and assign them to chosen word citations. After tracking the word in the citations they have selected, users will be able to generate their own infographics that contrast the semantic spectrum of the word with that of a possible English equivalent, or with that of other tracked Sanskrit lemmata. Translation teams will be able to share this tracked data, facilitating the discussion and negotiation expected in contemporary interpretation and rendition practices.

BTW is aimed at translators of Buddhist Sanskrit texts, but its features, including the Semantic Tracker, can in principle be applied to any language and literature. To maximize our impact across the humanities, we are planning to test the viability of using the conceptual structure of the HTE as the common ground in the comparison of two linguistic universes (a method known as the *tertium comparationis* in cross-lingual comparison). There are significant potential benefits for the field of ethno-linguistics. Of course, this ability to expand the application of BTW to the study of other languages and the comparison of cultural and linguistic webs of meaning implies that in the future BTW can expand to include a larger corpus of Sanskrit texts, as well as other canonical Buddhist languages.

5. BTW as a Tool and Model for Translators

As already noted, BTW was originally conceived as a tool to give greater access to the rich universe of meanings in Buddhist texts. For practical reasons, its scope so far has been limited to a relatively narrow corpus of Buddhist Sanskrit texts. Still, even this limited corpus has been chosen to reflect the various levels of language found in Sanskrit, a language with important literary and technical uses. One of the main challenges for the translator is finding a way to integrate these levels of language (e.g., natural, cultivated, consecrated, and technical). BTW is an especially powerful means to carry out this integration. It can serve to remind experienced translators of the web of meaning they must examine, while leading inexperienced translators to exploring various webs of meaning, giving equal attention to source and target languages and the possibility or impossibility of mapping one onto the other. By serving as a bidirectional tool with both onomasiological and semasiological features, BTW facilitates the cognitive process of translation by allowing quick access to contextual usage, etymology, synonymy and antonymy, and other semantic relations. Eventually BTW should help model similar research with other Buddhist languages.

BTW also assists users in their search for semantic ranges and contrasts, in the exploration of the effects of convergence and divergence on translation choice, and in diagramming semantic prototypes. It makes it easier to visualize the relationship between source and target languages offering a solid grounding in the way the two languages can or cannot map on each other. As the database expands, BTW should become an indispensable tool that assists and illuminates the tasks of translators, lexicologists and scholars of Buddhism, with long-term benefit to the non-scholarly public eager to have more accessible translations of Buddhist texts.

BTW has already been used as a pedagogical tool to highlight the complexity of the cognitive process of translation. Its infographics have been used to demonstrate the range of translation choice that can be justified scientifically, and have made it possible to test some of these choices in contexts from different corpora. Co-director Luis Gómez has used the proof-of-concept version to demonstrate to graduate students working with other Buddhist texts a wider range of best practices in semantic mapping and translation.

Co-Director Ligeia Lugli has traveled lectured to a wide range of academic audiences to speak about BTW and illustrate how she is already applying it in her research. Her presentations have been well received at major centers of learning such as the University of Hamburg, University of Oxford, King's College, London, and the University of Venice Ca' Foscari (see Appendix 1).

The Buddhist Translator's Workbench can be accessed at <http://btw.mangalamresearch.org>. A video demonstrating the main features of BTW can be accessed at the same location. The BTW Users Manual is found below at Appendix 2.

Appendix 1: List of Presentations

- 3/8/2013 'BTW: Challenges and Opportunities for Translation-Oriented Buddhist Lexicography in the Digital Era'. Paper presented at the conference 'Advances in Digital Humanities for Buddhist Studies', hosted by the Mangalam Research Center for Buddhist Languages, Berkeley.
- 9/5/2014 'Getting over Interlingual Equivalence: Semantic and Lexical Fields for Bilingual Sanskrit Lexicography'. Paper presented at Lady Margaret Hall, University of Oxford.
- 9/5/2014 'Thinking Like a Translator'. Paper presented at Lady Margaret Hall, University of Oxford.
- 3/20/2015 'A Meaningful Web: Semantic Mapping for Translation and Conceptual History through the Buddhist Translators Workbench'. Paper presented at King's College, London.
- 4/20/2015 'Data-visualization for the Study of Sanskrit Lexical Semantics'. Paper presented at the University of Venice Ca' Foscari.
- 6/2015 'Beyond Equivalence: Semantic Mapping for Intercultural Bilingual Lexicography'. Paper to be presented at 9th International Conference of the Asian Association of Lexicography, Hong Kong Polytechnic.
- 6/2015 'The Buddhist Translators' Workbench and its Applications for the Study of Buddhism'. Paper to be presented at 16th World Sanskrit Conference, Silpakorn University, Bangkok.



Buddhist Translators Workbench

User Manual

Mangalam Research Center for
Buddhist Languages

Contents

<u>Quick Introduction to BTW</u>	1
<u>Entry Structure</u>	2
Overview.....	2
Sense Discrimination.....	2
English Equivalents.....	2
Sense Descriptions.....	2
Citations.....	2
Contrastive Sections.....	3
Antonyms.....	3
Cognates.....	3
Conceptual Proximates.....	3
Historico-semantic data.....	3
<u>Future Developments</u>	4
Thesaurus Integration.....	4
Onomasiological Search.....	4
Data-visualization.....	4
Semantic Tracker.....	5
<u>BTW Examples</u>	6–14

Quick Introduction to BTW

The Buddhist Translators' Workbench (BTW) is a lexical tool for translators of Sanskrit Buddhist texts into English. At this stage, BTW consists of a small repository of lexical entries that serves as 'proof of concept' for a new model of bilingual lexicography designed to assist the translation of ancient Buddhist terminology. Our entries focus on words whose meaning is not easy to discern in the source language and is difficult to translate in English.

BTW treats each lemma as part of a semantic cluster of cognates and quasi-synonymic expressions. Users are invited to move away from the lists of equivalents and scholastic definitions traditionally used as touchstones in the translation of Buddhist texts and to conceive of the Buddhist lexicon as part of a network of significations. BTW encourages translators to conceptualize Buddhist terms as part of meaningful communicative fragments and to favor integral meaning over deduced meanings or mechanical word-for-word renditions. To achieve this goal, BTW integrates the features of good monolingual semasiological dictionaries with an innovative suite of bilingual onomasiological functions based on the conceptual structure of the Historical Thesaurus of English (<http://historicalthesaurus.arts.gla.ac.uk/>). To view our sample entries, please select 'Lexicography' in the Home menu and choose 'search'.

Entry Structure

BTW's entries comprise three major sections: (1) an overview of the lemma, (2) a sense discrimination unit that provides a structured analysis of its senses; and (3) a historical semantic paragraph containing etymological notes.

Overview

This section offers an overview of the semantic, syntactical and collocational profile of the lemma. It presents its denotative range and broadly discusses the possible semantic shifts that led to the polysemy attested in the BTW corpus. To facilitate comparison with possible English renditions, this paragraph also includes a brief introduction to the semantic categories linked to the lemma. Translators are encouraged to use this information to search the *Historical Thesaurus of English* for English words indexed to the relevant categories. In addition to strictly semantic data, the overview discusses the semantic prosody and connotational value of the lemma, as well as any notable syntactic frame in which it might appear. Finally, the overview mentions any notable collocational pattern that might affect the meaning of the lemma or influence its use over near-synonyms in certain phrases and contexts. It must be noted that, due to the small size of corpus used, collocational patterns are limited to easily identifiable strings, mostly of formulaic nature, and do not result from statistical analysis of the lemma's co-text.

Sense discrimination

This section lists the senses and uses of the lemma that can be identified in our corpus, and provides a variety of ways to explore them. In a typical entry, the following information is provided for each sense:

- a. **English Equivalents:** For each sense of the lemma, BTW lists the most relevant cognitive equivalents in English. The semantic categories to which the HT assigns these equivalents can be viewed by clicking on the "semantic fields" tab below the English words.
- b. **Sense description:** BTW provides a short description of each sense. This is split in to two or more sub-senses when semantic nuances or distinctive syntactical and collocational patterns call for fine-grained distinctions within the main sense.
- c. **Citations:** each sense or subsense is exemplified by Sanskrit citations. BTW provides translations of the main citations for ease of perusal. In both the citations and their translations the **lemma** appears in green. Readers who wish to see more citations will find more Sanskrit citations (without translation) by clicking on the "more citations" tab.

A citation is usually accompanied by a list of the semantic categories that pertain to the lemma in that citation. Passages where the sense of the lemma is underspecified, or cannot otherwise be assigned to any semantic field with a reasonable degree of certainty, are not accompanied by semantic categories.

- d. **Contrastive section:** to illustrate the uses of the lemma in relation to other words, BTW provides a selection of citations featuring the lemma together with semantically or etymologically related words.
- The **antonyms** section contains citations in which the lemma is contrasted with lexical items of opposite or quasi-opposite meaning (e.g., prasāda-aprasāda, but also prasāda-pratigha).
 - The **cognates** section includes citations illustrating how the lemma compares with words derived from the same root and semantically close to it (prasāda, prasanna, abhipra[√]sad).
 - The **conceptual proximates** section comprises citations that highlight how the lemma compares to its near-synonyms or, more generally, to words that are linked to the lemma by tight semantic or collocational relations (e.g. śraddhā, prasāda, adhimukti, avakalpanā).

Translations and lists of semantic categories accompany all citations in the contrastive sections. In the citations, **antonyms** are marked in purple, **cognates** in orange and **conceptual proximates** in red. Readers can access the entries dedicated to the cognates and conceptual proximates by clicking on the headword on top of the relevant citation. BTW is a work in progress, and, while it seeks to provide entries for all the cognates and conceptual proximate listed, some entries may not be available just yet.

Historico-semantic data

This unit contains a brief account of the etymology of the lemma. Whenever possible, it connects the semantic shifts that the lemma (or its root) underwent over time with the senses discussed in the entry. The etymological information provided in the section is based upon published literature in the field, and does not rest on primary research on the part of the BTW team.

Our main sources are:

- Buck C.D. 1949. *A dictionary of selected synonym in the principal Indo-European Languages*. Chicago: University of Chicago.
- Mayrhofer M. 1956. *Kurzgefasstes Etymologisches WB des Altindischen*. Heidelberg: Carl Winter.
- Pokorny J. 1959. *Indogermanisches etymologisches Wörterbuch*. Bern: Francke.
- Rix H. 2001. *Lexikon der indogermanischen Verben*. Wiesbaden: Ludwig Reichert Verlag.
- Reference to other publications is provided in the relevant entries.

Future Developments

BTW will continue to expand. In addition to enriching our database with new entries, we are working on a number of new features. These include integration with the Historical Thesaurus of English, onomasiological search, data-visualization tools, and a semantic tracker application.

Thesaurus integration

BTW will soon be able to query the Historical Thesaurus of English through an API. This will facilitate simultaneous perusal of BTW and the Historical Thesaurus of English. Translators will be able to switch seamlessly between looking up Sanskrit words in BTW and searching for semantically similar English equivalents in the Historical Thesaurus. The integration will also enable BTW to display the name of the semantic categories instead of their number (e.g. ‘faith’ instead of ‘03.08’), so that the lists of semantic categories in our entries will be easier to read and use.

Onomasiological search

Once the Thesaurus integration is implemented, BTW will allow to search by semantic categories (onomasiological search). Translators will be able to retrieve and compare all the lemmata and citations linked to a chosen semantic category. This will make it easy to explore how a semantic category is lexicalized in our corpus, as well as to investigate the possible rationale for different lexical choices in various Sanskrit texts.

Data-visualization

To facilitate perusal of the semantic data contained in BTW, we are planning to develop a number of infographic tools:’

- BTW will chart the semantic spectrum of a lemma on the conceptual structure of the Historical Thesaurus and compare it with any chosen English rendition or with near-synonyms in Sanskrit.
- It will also be possible to generate charts that compare the semantic spectra of near-synonyms and cognates in a single text, or in a certain genre.
- Conversely, BTW will allow translators to contrast the uses of a lemma in different texts.
- For translators interested in a broader picture of a lemma’s semantic profile and of the lemma’s position in the semantic space relative to other Sanskrit words, BTW will generate semantic maps based on the entirety of its database.

For translators interested in a broader picture of a lemma’s semantic profile, or wishing to chart the lemma’s position in the semantic space relative to other Sanskrit words, BTW will generate semantic maps based on the entirety of its database.

Semantic tracker

The workbench aspect of BTW includes a suite of tools designed to help translators both interpret and translate their source texts. BTW will allow them to track the semantic value of any Sanskrit word in any text, and assist their choice of a suitable English rendition. To this end, an adapted version of the current BTW editor will be made available to translators. The adapted editor will help users to select semantic categories from the Historical Thesaurus of English and to assign them to a chosen word-citation. After tracking the word in all the desired citations, translators will be able to generate infographics that contrast the semantic spectrum of the word with that of a possible English equivalent, or with that of other tracked Sanskrit lemmata. It will be possible to share the tracked data within translation teams to facilitate agreement on interpretation and rendition. User-contributed semantic charts will also be available to the BTW community of users, with the warning that their content has not been peer-reviewed.

BTW will also search the Historical Thesaurus of English and retrieve English words that match the semantic spectrum of the tracked Sanskrit word. The software will indicate the percentage of the semantic overlap between the Sanskrit and its rendition, thus guiding the increasing number of non-native English translators in their lexical choices.

BTW is aimed at translators of Buddhist Sanskrit texts, but the semantic tracker can theoretically be applied to any language and literature. With a view to maximize our impact across the Humanities, we are planning to test the viability of using the conceptual structure of the Historical Thesaurus of English as tertium comparationis for comparing the semantic spectrum of words across different languages and cultures.

We are prepared to equip BTW with additional tools and features based on the feedback and suggestions we receive from our colleagues in the fields of Translation, Lexicography and Buddhist Studies. We are currently presenting BTW in as many academic venues as possible to ensure we create a useful and theoretically-sound resource that will contribute to the advancement of the Humanities in the digital age.



• SENSE DISCRIMINATION

A.

conceive, distinguish

▼ semantic fields

conceive

01.02.02.03.16.05; 02.01.07.04; 02.01.07.04|03

distinguish

01.09|02; 01.11.01.05|05; 01.16.01.06|01; 01.16.02.02|04; 01.16.02.02|05; 02.02.07.05;
02.02.07.05|01; 02.02.09.05.02; 03.09.04.02

1. to single out, to process variety by differentiating, identifying, specifying or choosing

► semantic fields

Abhidharmakośabhāṣyam, (Pradhan, 1975) 467: iha caivaṃ **vikalpyate**
"anātmānyātmēti saṃjñāviparyāśāścittaviparyāso dṛṣṭīviparyāsa" iti / anātmānyātmēti
viparyāso na tvātmāni

and so here [, in the sūtra,] it is **specified** that seeing a self where there is no self is a
wrong notion, wrong thought and wrong view.

► semantic fields

Mūlamadhyamakakārikā, (Ye, 2011) 44: anya eva punar gantā gater yadi **vikalpyate** |
gamaṇaṃ syād ṛte gantur gantā syād gamaṇād ṛte ||20||

If, instead, we **differentiate** the goer from the act going, we would have the act of going
without the goer and the goer without the act of going.

► semantic fields

Saundarananda, (Johnston, 1928) 104: tasmāt sarveṣu bhūteṣu maitrīm kāruṇyam eva
ca / na vyāpādaṃ vihiṃsām vā **vikalpayitum** arhasi // Saund_15.17 //

Hence, you should **choose** [to cultivate] loving kindness and compassion towards all
beings, not malice and violence.

► more citations

OVERVIEW

SENSE DISCRIMINATION

A. conceive, distinguish

1. to single out, to
process variety by
differentiating, identifying,
specifying or choosing

2. to conceive, form in the
mind. Often collocated
with and not clearly
distinguishable from √kṛp

B. offer

1. to offer robes, only in
religious context

HISTORICO-SEMANTICAL
DATA

etymology

RETURN TO GUIDE

▼ contrastive section

▶ antonyms

▶ cognates

▶ conceptual proximities

▼ antonyms

antonym 1: **nirvikalpa**
antonym 2: **sahaja**
antonym 1: **nirvikalpa**

▶ semantic fields

Tathāgatācintyaguhyā, ([Lugli, forthcoming](#)) 5r: satatasamāhito hi śāntamate tathāgataḥ na tathāgata ucchvasati vā praśvasati vā vitarkayati vā vicārayati vā na cāsatsu vitarkkavicāreṣu vā[6]ṇ niścarati tac ca tathāgato na vitarkkayati na vicārayati na kalpayati | na vikalpayati na bhāṣayati nodāharati na pravāharati [...] tatra ca tathāgato nirvikalpa upekṣakaḥ |

In fact, Śāntamati, the Tathāgata is equipoised in perpetual contemplation. The Tathāgata does not inhale, nor does he exhale; he does neither **think** nor **analyse**, and in absence of **thought** and **analysis** no speech is produced. And the Tathāgata does not **think**, **analyse**, **form ideas**, **make conceptual distinctions**, speak, utter, or verbalize. [...] Again, the Tathāgata **makes no distinctions**, he is indifferent.

▼ cognates

cognate 2: **kalpanā**

▶ semantic fields

Bhavasamkrānti, ([Bhikṣuṇī Vinitā, 2010](#)) 442: asadbhūtā hi amī dharmāḥ kalpanataḥ samutthitāḥ | sāpy atra kalpanā nāsti yayā śūnyaṃ vikalpyate ||

These factors are unreal, they originate from **ideas**, and even the **idea** through which what is empty is **conceptually construed** does not exist.

▼ conceptual proximities

conceptual proximate 1: **saṃjñin**
conceptual proximate 2: **pra-/pañic**
conceptual proximate 1: **saṃjñin**

▶ semantic fields

Bodhisattvabhūmi, ([Wogihara, 1930](#)) 241-42: yatpunaḥ dharmamātrasaṃjñī dharmamātre sattvopacāram āśayataḥ saṃpaśyaṃs tām eva maitrīm bhāvayati / iyamasya dharmāmbanā maitrī vedītyā / yat punar dharmān apy avikalpayāms tām eva maitrīm bhāvayati /

The benevolence brought about while meditating on the dharmas is when the bodhisattva **conceives** only the dharmas, and reflects on the dharmas with the intent of serving sentient beings. The benevolence without any meditative support is when he generates benevolence without **forming any notion**, not even that of dharmas.

OVERVIEW

SENSE DISCRIMINATION

A. conceive, distinguish

1. to single out, to process variety by differentiating, identifying, specifying or choosing

2. to conceive, form in the mind. Often collocated with and not clearly distinguishable from √kṛp

B. offer

1. to offer robes, only in religious context

HISTORICO-SEMANTICAL DATA

etymology



User Navigation Menu

RETURN TO GUIDE

HTOED Distribution of the Semantic Range of “Prasāda”

The Earth	Plants	Matter	Action	Mental Capacity	Contempt	Intense emotion	Fear	Will	Relinquish-ment
Region of the earth	The body	Alchemy	Time	Spirituality	Emotion	Seat of emotion	Courage	Free will	Giving
Geodetic references	Animals	Chemistry	Space	Intellect	Seat of emotion	Earnest emotion	Philosophy	Necessity	Taking
Direction	People	Properties of materials	Movement	Consciousness	Emotional perception	Zeal	Philosopher	Inclination	Provision
Land	Food and drink	Constitution of matter	Relative properties	Character	Affecting emotions	Passion	Scholasticism	Intention	Language
Water	Textiles	Liquid	Relationship	The psyche	Effect on emotions	Violent emotion	Metaphysics	Resolving	A language
Named regions	Clothing	Gas	Kind	Thought	Emotional attitude	Calmness	Epistemology	Motivation	World languages
Structure of the earth	Cleanliness	Physics	Order	Perception	State of feeling	Enjoyment	Ethics	Refusal	Speech
Minerals	Physical sensibility	Light	Number	Understanding	Manifestation of emotion	Suffering	Aesthetics	Owning	Study of language
Earth science	Sleeping and waking	Colour	Measurement	Lack of understanding	Capacity for emotion	Anger	Good taste	Possessor	Naming
The universe	Sexual relations	Condition of matter	Quantity	Intelligibility	Sentimentality	Love	Bad taste	Possession	Statement
Weather	Use of drugs	Existence in Time and Space	Wholeness	Memory	Absence of emotion	Enmity	Fashionable-ness	Non-possession	Malediction
Life	Touch	Existence	The Supernatural	Knowledge	Types of emotion	Indifference	Unfashionable-ness	Wealth	
Health and disease	Taste	Creation	The paranormal	Belief		Compassion	Beauty	Poverty	
Death	Smell	Causation	The occult	Expectation		Jealousy	Attractiveness	Sharing	
Biology	Sight	Occurrence	Supernatural being	Attention		Gratitude	Beautification	Obtaining	
	Hearing		Deity	Importance		Pride	Lack of beauty	Loss	
				Esteem/regard		Humility		Retaining	

Society	Providing with dwelling place	Defeat	Military equipment	authority	Education	Faith	Information	Means of transport	Condition of not working
Relationship	Removing from dwelling place	Attack	Hostilities	Subjection to authority	Upbringing	Instance of devotion	Record	Railway travel	Worker
Study of society	Furnishing with inhabitants	Defence	Peace	Lack of subjection	Teaching	Sect	Writing	Air/space travel	Workplace
Social customs & values	Inhabitant	Military operation	Authority	Lack of authority	Learning	Church	Printing	Occupation	Equipment for work
Communication	Inhabited place	Training	Power	Punishment	Member of university	Worship	Reading	Work	Materials
Social attitudes	Armed Hostility	Military organization	Command	Law	Educational administration	Religious Artefacts	Book	A position	Trade
Social class	War	Military life	Control	Morality	Place of education	Communication	Journalism	Function	Leisure
Discord	Armed encounter	Military power	Strictness	Duty	Theories of education	Expression	Broadcasting	Following an occupation	Amusement
Dwelling	Victory in arm	Military forces	Lack of strictness	Propriety		Manifestation	Correspondence	Business	Social event
Inhabing a type of place		Armed band	Rule	Rightness		Representation	Telecommunication	Industry	The arts
Inhabiting temporarily		Warring party	Office	Virtue		Indication	Travel	Study of work	Sport
		Fightier	Exercise of	Moral evil			Transport		Dance

RETURN TO GUIDE

Semantic Comparison of Prasāda and Confidence

The Earth	Plants	Matter	Action	Mental Capacity	Contempt	Intense emotion	Fear	Will	Relinquish-ment
Region of the earth	The body	Alchemy	Time	Spirituality	Emotion	Emotion	Courage	Free will	Giving
Geodetic references	Animals	Chemistry	Space	Intellect	Seat of emotion	Earnest emotion	Philosophy	Necessity	Taking
Direction	People	Properties of materials	Movement	Consciousness	Emotional perception	Zeal	Philosopher	Inclination	Provision
Land	Food and drink	Constitution of matter	Relative properties	Character	Affecting emotions	Violent emotion	Scholasticism	Intention	Language
Water	Textiles	Liquid	Relationship	The psyche	Effect on emotions	Calmness	Metaphysics	Resolving	A language
Named regions	Clothing	Gas	Kind	Thought	Emotional attitude	Enjoyment	Epistemology	Motivation	World languages
Structure of the earth	Cleanliness	Physics	Order	Perception	State of feeling	Love	Ethics	Refusal	Speech
Minerals	Physical sensibility	Light	Number	Understanding	Manifestation of emotion	Enmity	Aesthetics	Possession	Study of language
Earth science	Sleeping and waking	Colour	Measurement	Lack of understanding	Capacity for emotion	Indifference	Good taste	Owning	Naming
The universe	Sexual relations	Condition of matter	Quantity	Intelligibility	Sentimentality	Compassion	Bad taste	Possessor	Statement
Weather	Use of drugs	Existence in Time and Space	Wholeness	Memory	Absence of emotion	Jalousy	Fashionable-ness	Possession	
Life	Touch	Existence	The Super-natural	Knowledge	Types of emotion	Gratitude	Unfashionable-ness	Non-possession	
Health and disease	Taste	Creation	The paranormal	Belief		Pride	Beauty	Wealth	
Death	Smell	Causation	The occult	Expectation		Humility	Attractiveness	Poverty	
Biology	Sight	Occurrence	Supernatural being	Attention			Beautification	Sharing	
	Hearing		Deity	Importance			Lack of beauty	Obtaining	
				Esteem/regard				Loss	
								Retaining	

Society	Providing with dwelling place	Defeat	Military equipment	authority	Education	Faith	Information	Means of transport	Condition of not working
Relationship	Removing from dwelling place	Attack	Hostilities	Subjection to authority	Upbringing	Instance of devotion	Record	Railway travel	Worker
Study of society	Furnishing with inhabitants	Defence	Peace	Lack of subjection	Teaching	Sect	Writing	Air/space travel	Workplace
Social customs & values	Inhabitant	Military operation	Authority	Lack of authority	Learning	Church	Printing	Occupation	Equipment for work
Communication	Inhabited place	Training	Power	Punishment	Member of university	Worship	Reading	Work	Materials
Social attitudes		Military organization	Command	Law	Educational administration	Religious Artefacts	Book	A position	Trade
Social class	Armed Hostility	Military life	Control	Morality	Place of education	Communication	Journalism	Function	Leisure
Discord	War	Military power	Strictness	Duty	Theories of education	Expression	Broadcasting	Following an occupation	Amusement
Dwelling	Armed encounter	Military forces	Lack of strictness	Propriety		Manifestation	Correspondence	Business	Social event
Inhabiting a type of place	Victory in arm	Armed band	Rule	Rightness		Representation	Telecommunication	Industry	The arts
Inhabiting temporarily		Warring party	Office	Virtue		Indication	Travel	Study of work	Sport
		Fightier	Exercise of	Moral evil			Transport		Dance

Legend

Prasāda

Confidence

Shared

RETURN TO GUIDE

Semantic Comparison of Prasāda and Śraddhā

The Earth	Plants	Matter	Action	Mental Capacity	Contempt	Intense emotion	Fear	Will	Relinquish-ment
Region of the earth	The body	Alchemy	Time	Spirituality	Emotion	Seat of emotion	Courage	Free will	Giving
Geodetic references	Animals	Chemistry	Space	Intellect	Seat of emotion	Earnest emotion	Philosophy	Necessity	Taking
Direction	People	Properties of materials	Movement	Consciousness	Emotional perception	Zeal	Philosopher	Inclination	Provision
Land	Food and drink	Constitution of matter	Relative properties	Character	Affecting emotions	Violent emotion	Scholasticism	Intention	Language
Water	Textiles	Liquid	Relationship	The psyche	Effect on emotions	Calmness	Metaphysics	Resolving	A language
Named regions	Clothing	Gas	Kind	Thought	Emotional attitude	Enjoyment	Epistemology	Refusal	World languages
Structure of the earth	Cleanliness	Physics	Order	Perception	State of feeling	Suffering	Ethics	Possession	Speech
Minerals	Physical sensibility	Light	Number	Understanding	Manifestation of emotion	Anger	Aesthetics	Owning	Study of language
Earth science	Sleeping and waking	Colour	Measurement	Lack of understanding	Capacity for emotion	Love	Good taste	Possessor	Naming
The universe	Sexual relations	Condition of matter	Quantity	Intelligibility	Sentimentality	Enmity	Bad taste	Possession	Statement
Weather	Use of drugs	Existence in Time and Space	Wholeness	Memory	Absence of emotion	Indifference	Fashionable-ness	Non-possession	
Life	Touch	Existence	The Supernatural	Knowledge	Types of emotion	Compassion	Unfashionable-ness	Wealth	
Health and disease	Smell	Creation	The paranormal	Belief		Jealousy	Beauty	Poverty	
Death	Sight	Causation	The occult	Expectation		Gratitude	Attractiveness	Sharing	
Biology	Hearing	Occurrence	Supernatural being	Importance		Pride	Beautification	Obtaining	
			Deity	Esteem/regard		Humility	Lack of beauty	Loss	
								Retaining	

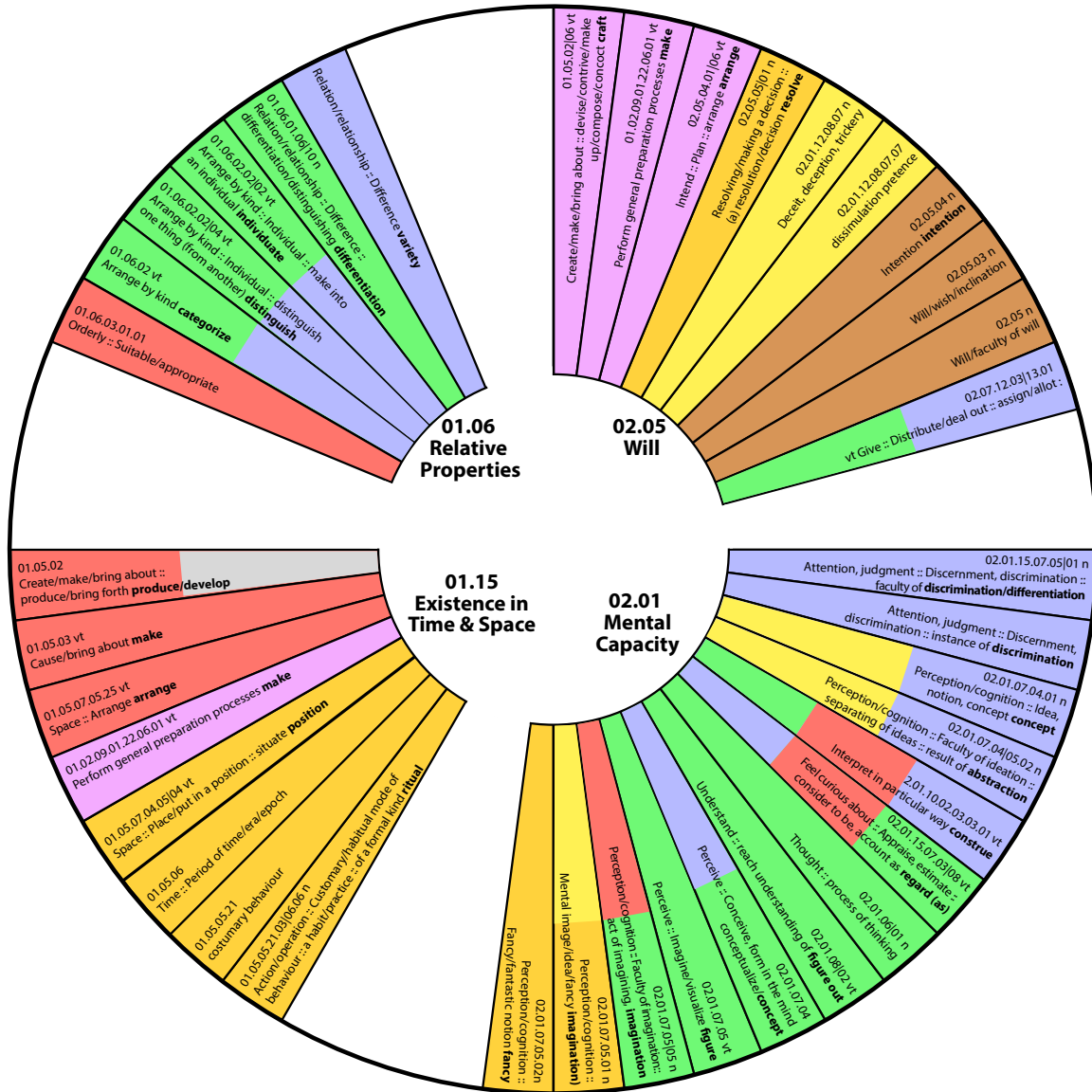
Legend
Prasāda
Śraddhā
Shared

Society	Providing with dwelling place	Defeat	Military equipment	authority	Education	Faith	Information	Means of transport	Condition of not working
Relationship	Removing from dwelling place	Attack	Hostilities	Subjection to authority	Upbringing	Instance of devotion	Record	Railway travel	Worker
Study of society	Furnishing with inhabitants	Defence	Peace	Lack of subjection	Teaching	Sect	Writing	Air/space travel	Workplace
Social customs & values	Inhabitant	Military operation	Authority	Lack of authority	Learning	Church	Printing	Occupation	Equipment for work
Communication	Inhabited place	Training	Power	Punishment	Member of university	Worship	Reading	Work	Materials
Social attitudes	Armed Hostility	Military organization	Command	Law	Educational administration	Religious Artefacts	Book	A position	Trade
Social class	War	Military life	Control	Morality	Place of education	Communication	Journalism	Function	Leisure
Discord	Armed encounter	Military power	Strictness	Duty	Theories of education	Expression	Broadcasting	Following an occupation	Amusement
Dwelling	Victory in arm	Military forces	Lack of strictness	Propriety		Manifestation	Correspondence	Business	Social event
Inhabiting a type of place		Armed band	Rule	Rightness		Representation	Telecommunication	Industry	The arts
Inhabiting temporarily		Warring party	Office	Virtue		Indication	Travel	Study of work	Sport
		Fightier	Exercise of	Moral evil			Transport		Dance

RETURN TO GUIDE

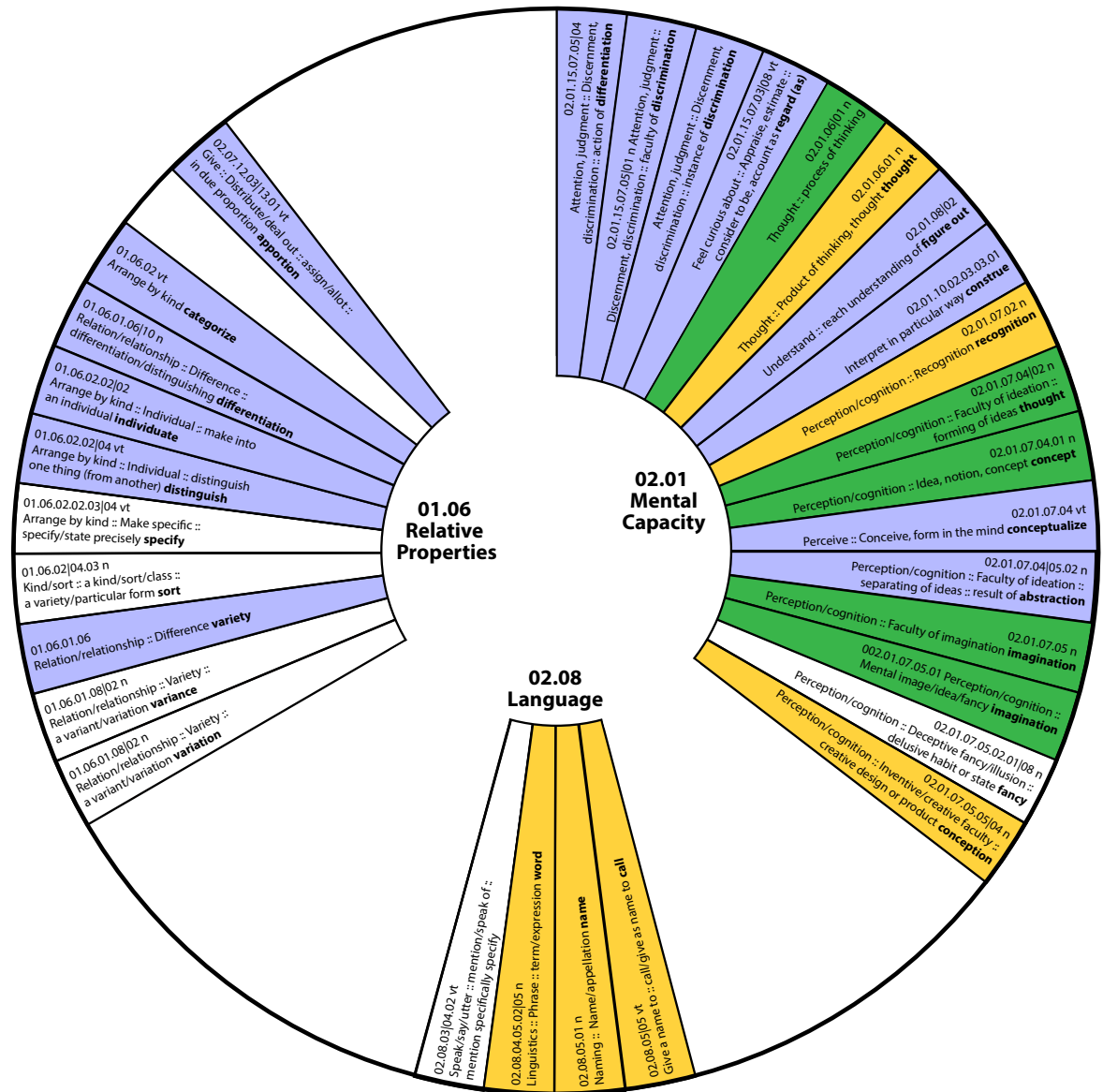
Bodhisattvabhūmi Cognates Contrastive Chart

vi√kṛp
vikalpa
√kṛp
kalpa
kalpanā
saṃ√kṛp
saṃkalpa
pra√kṛp

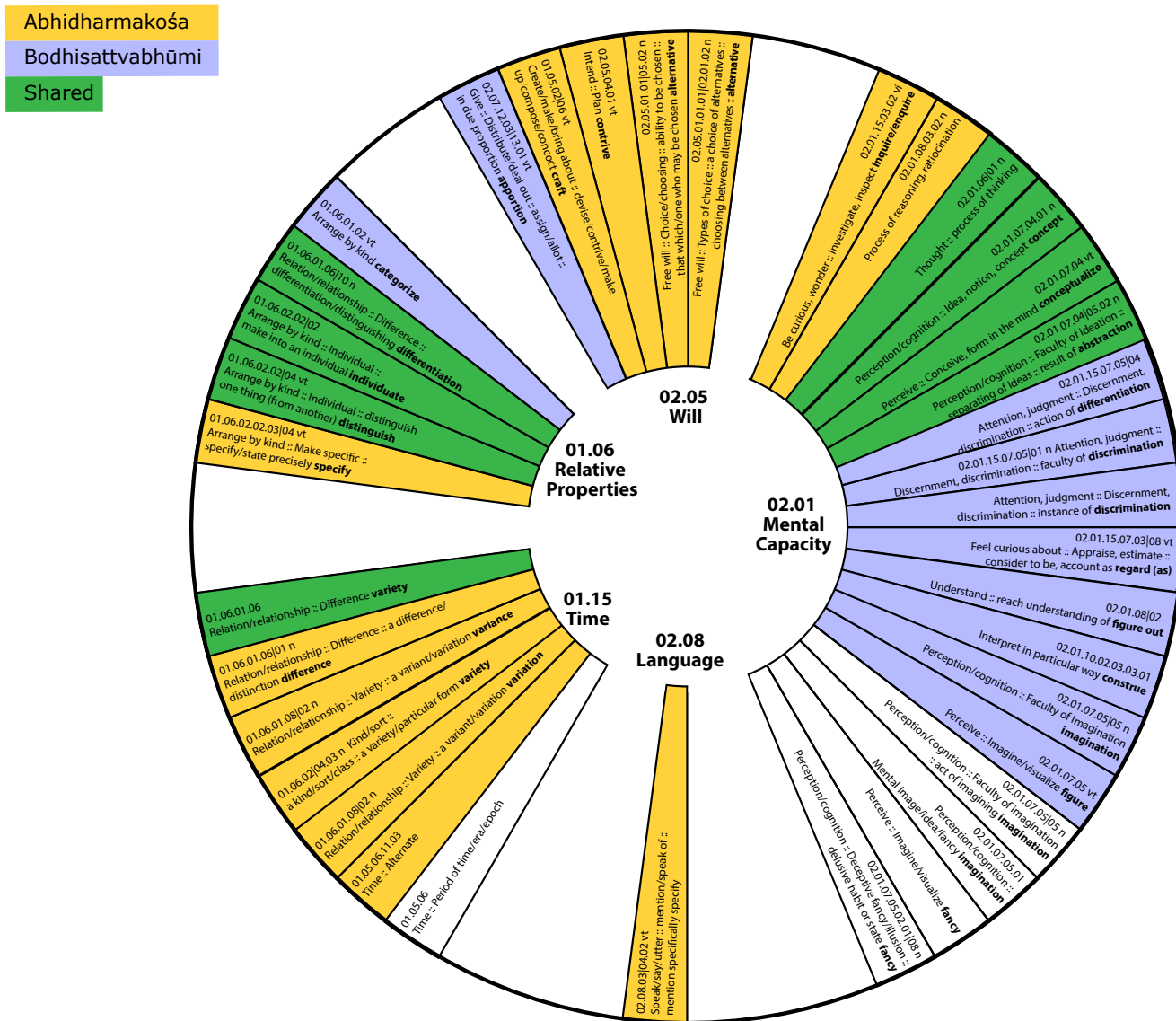


RETURN TO GUIDE

Vikalpa-Saṃjñā Contrast in the Bodhisattvabhūmi

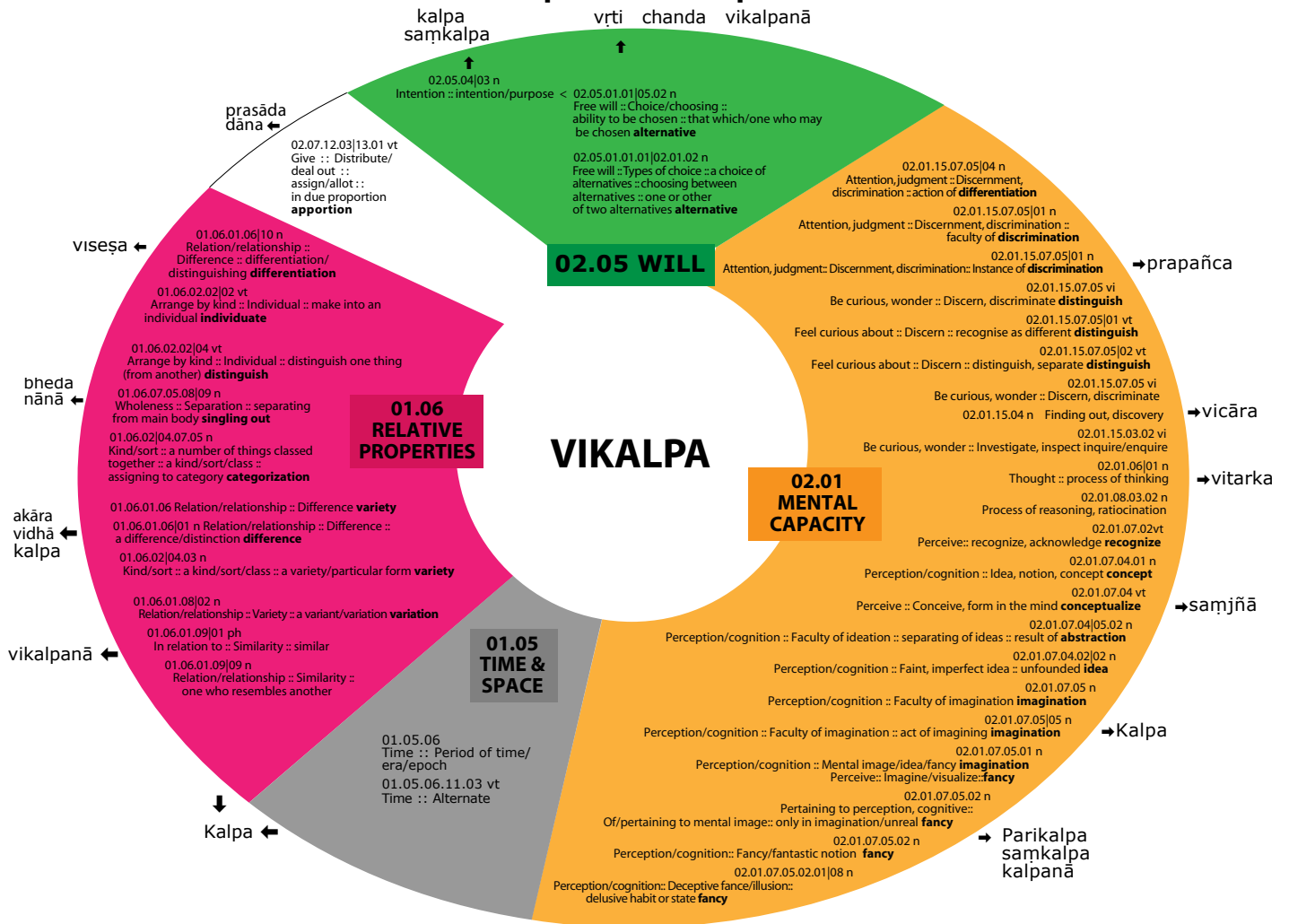
[RETURN TO GUIDE](#)

Use of Vikalpa in Abhidharmakośa & Bodhisattvabhūmi



[RETURN TO GUIDE](#)

Vikalpa Semantic Spectrum



RETURN TO GUIDE